How Should I Format My Fixed Broadband Deployment Data?

Data Fields

Your Fixed Broadband Deployment data should be arranged in a comma-delimited text file with the following 9 data fields:

Field	Description	Type	Example
Block	15-digit census block code – must be 15 digits! See More About Census Blocks.	Text	110010062021037
DBA Name	Name of the entity customers could contact to purchase service in this block with the characteristics below	Text	CableTown
Technology of Transmission	Category of technology for the provision of Internet access service used by the portion of the connection that would terminate at the end-user location (premises). Acceptable codes for this section are: 10 = Asymmetric xDSL 11 = ADSL2, ADSL2+ 12 = VDSL 20 = Symmetric xDSL* 30 = Other Copper Wireline (all copper-wire based technologies other than xDSL; Ethernet over copper and T-1 are examples) 40 = Cable Modem other than DOCSIS 1, 1.1, 2.0 or 3.0 41 = Cable Modem – DOCSIS 1, 1.1 or 2.0 42 = Cable Modem – DOCSIS 3.0 50 = Optical Carrier / Fiber to the end user (Fiber to the home or business end user, does not include "fiber to the curb") 60 = Satellite† 70 = Terrestrial Fixed Wireless 90 = Electric Power Line 0 = All Other If different technologies could be used in the two directions of information transfer (downstream and upstream), report the connection in the technology category for the downstream direction. *Symmetric xDSL is a set of technologies distinct from Asymmetric xDSL technologies. Symmetric xDSL services are designed to **only** operate with equal information-transfer rates downstream and upstream—and they are not typically marketed to residential end users. †Satellite providers: If your deployment can be represented by a file containing an identical record for <u>every</u> block in a state or set of states, then you may file a single block record for each such state and indicate that the single block represents the characteristics of all blocks in the state or states in the Explanations & Comments portion of the form. See Example 4 below.	Integer	41
Consumer	Mass market / consumer broadband service is available in this block (1=Yes; 0=No)	Integer	1
Maximum Advertised Downstream Bandwidth, Consumer	For mass market / consumer broadband services, the maximum advertised downstream bandwidth available in the census block in Mbps. You can enter up to 3 places after the decimal (e.g., 768 kbps would be entered as 0.768). If the field "Consumer" equals 1, there should be a non-zero value in this field.	Float	7
Maximum Advertised Upstream Bandwidth, Consumer	For mass market / consumer broadband services, the maximum advertised upstream bandwidth that is offered with the above maximum advertised downstream bandwidth available in the census block in Mbps. You can enter up to 3 places after the decimal (e.g., 768 kbps would be entered as 0.768). If the field "Consumer" equals 1, there should be a non-zero value in this field.	Float	1.5

Business/Government	Business / enterprise / government broadband service is available in this block (1=Yes; 0=No)	Integer	1
Maximum Contractual Downstream Bandwidth (Business/Government)	For business / government broadband services, the maximum downstream contractual or guaranteed data throughput rate available in the census block in Mbps. You can enter up to 3 places after the decimal (e.g., 768 kbps would be entered as 0.768). If your company markets business Internet access services in this block that don't have a contractual or guaranteed data throughput rate (i.e., they are "best efforts" services) enter 0 for this field.	Float	7
Maximum Contractual Upstream Bandwidth (Business/Government)	For business / government broadband services, the maximum upstream contractual or guaranteed data throughput rate offered with the above maximum downstream contractual or guaranteed data throughput rate available in the census block in Mbps. You can enter up to 3 places after the decimal (e.g., 768 kbps would be entered as 0.768). If your company markets business Internet access services in this block that don't have a contractual or guaranteed data throughput rate (i.e., they are "best efforts" services) enter 0 for this field.	Float	3

Any variation in Block, DBA Name, or Technology of Transmission necessitates the creation of a new record. For example, if a provider indicates that broadband service is available in a particular census block via two technologies, then the data should contain two records for that census block. Records should be unique by Block, DBA Name, and Technology of Transmission.

If we were to place the values in the "Example" column from the table above into a comma-delimited format for upload, they would make a single data row (record) like this:

110010062021037, Cabl eTown, 41, 1, 7, 1. 5, 1, 7, 3

This record can be translated as saying that in block 110010062021037, CableTown can offer a residential-grade cable modem (DOCSIS 1.0, 1.1 or 2.0) internet access service with advertised bandwidths of 7 Mbps downstream and 1.5 Mbps upstream as well as a business-grade cable modem internet access service with guaranteed bandwidths of 7 Mbps downstream and 3 Mbps upstream.

Some Examples

This part of the form is asking for each block in which you could provide services over facilities that you own, what kinds of services could be provided within a reasonable interval (that is, without an extraordinary effort). A way to approach this is to take the array of services offered and parse them into those that are (a) generally marketed to and taken primarily by businesses (incl. government) vs. (b) generally marketed to and taken by residential customers.

1. Your company is offering cable modem broadband service to consumers and businesses.

   (a) assume that on the business side, your company offers a business internet access service with advertised bandwidths of 25 Mbps downstream and 3 Mbps upstream (25/3). This service is provided over cable modem (DOCSIS 3.0) and there's no committed information rate (CIR) or guaranteed minimum bandwidth. This is sometimes referred to as a "best efforts" type of internet access service.

(b) assume that on the residential side, you offer a 12/1.5 Mbps internet access service. Again, assume that this service is provided over cable modem (DOCSIS 3.0) and there's no guaranteed minimum bandwidth.

Now, let's say that, broadband services are available from your company in 3 blocks: 511790104061009, 511790104061010 and 511790104061011.

- In block 511790104061009 your company can provide customers with any of the services mentioned above – business internet access at 25/3 Mbps over coaxial cable and / or residential internet access at 12/1.5 Mbps over coaxial cable.
- In block 511790104061010, however, your company can only offer the residential service and;
- In block 511790104061011 it can only offer the business service.

Since the records need to be unique by block, doing-business-as (DBA) name and last-mile technology, your deployments would be expressed as follows:

Block Code	DBA	Tech Code	Consumer Flag	MaxAdDn (Mbps)	MaxAdUp (Mbps)	Business Flag	CIRdn (Mbps)	CIRup (Mbps)
511790104061009	AAAInternet	42	1	12	1.5	1	0	0
511790104061010	AAAInternet	42	1	12	1.5	0	0	0
511790104061011	AAAInternet	42	0	0	0	1	0	0

The comma-delimited, plain text file containing these data viewed in a text editor like NotePad should look like this:
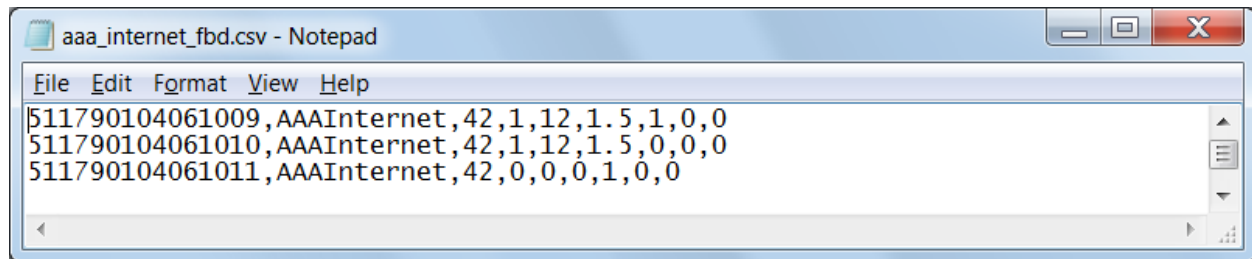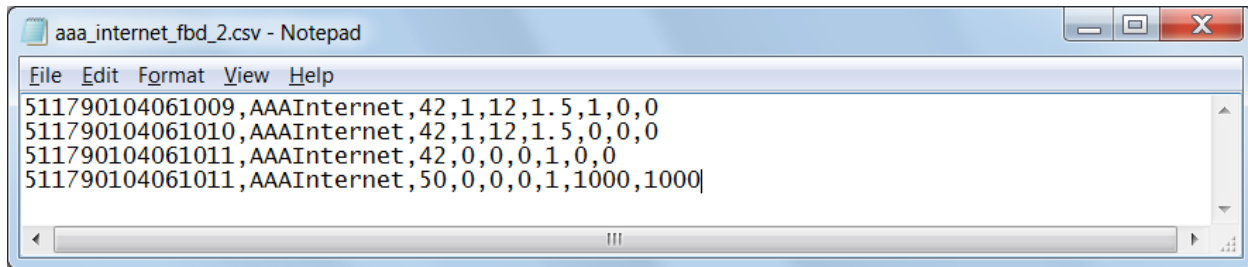

2. Same scenario, expanded slightly.

Because of demand from businesses in block 511790104061011, your company rolls out a dedicated internet access service. The service will be deployed over fiber and will offer guaranteed bandwidths of up to 1 Gbps in both directions.

Your deployments would now be expressed as follows:

Block Code	DBA	Tech Code	Consumer Flag	MaxAdDn (Mbps)	MaxAdUp (Mbps)	Business Flag	CIRdn (Mbps)	CIRup (Mbps)
511790104061009	AAAInternet	42	1	12	1.5	1	0	0
511790104061010	AAAInternet	42	1	12	1.5	0	0	0
511790104061011	AAAInternet	42	0	0	0	1	0	0
511790104061011	AAAInternet	50	0	0	0	1	1000	1000

The comma-delimited, plain text file containing these data viewed in a text editor like NotePad should look like this:

```
aaa_internet_fbd_2.csv - Notepad
File  Edit  Format  View  Help
511790104061009,AAAInternet,42,1,12,1.5,1,0,0
511790104061010,AAAInternet,42,1,12,1.5,0,0,0
511790104061011,AAAInternet,42,0,0,0,1,0,0
511790104061011,AAAInternet,50,0,0,0,1,1000,1000
```

3. Same scenario, expanded further still.

Your company acquires archrival BBBTelephone, but the two companies continue to operate with their legacy DBA names despite the fact that they are now commonly owned. The two companies could continue to submit separate 477 filings, but management has decided to file jointly under a single, new FRN.

(a) assume that on the business side, BBBTel offers two services:

   i.   a business internet access service with advertised bandwidths of 15 Mbps downstream and 3 Mbps upstream (15/3). This service is provided over asymmetric xDSL and there's no committed information rate (CIR) or guaranteed minimum bandwidth.

   ii. a business internet access service with a guaranteed minimum bandwidth of 3 Mbps symmetric (3/3). This service is provided over symmetric xDSL.

(b) assume that on the residential side, BBBTel offers 3/1.5 Mbps and 6/1.5 Mbps internet access services. Again, assume that this service is provided over asymmetric xDSL and there's no guaranteed minimum bandwidth.

BBBTel operates in the same 3 blocks: 511790104061009, 511790104061010 and 511790104061011.

- In block 511790104061009 BBBTel can offer any of its services.
- In block 511790104061010 it can only offer the residential services and;
- In block 511790104061011 it can only offer the business service.

Your deployments would now be expressed as follows:

Block Code	DBA	Tech Code	Consumer Flag	MaxAdDn (Mbps)	MaxAdUp (Mbps)	Business Flag	CIRdn (Mbps)	CIRup (Mbps)
511790104061009	AAAInternet	42	1	12	1.5	1	0	0
511790104061009	BBBTel	10	1	6	1.5	1	0	0
511790104061009	BBBTel	20	0	0	0	1	3	3
511790104061010	AAAInternet	42	1	12	1.5	0	0	0
511790104061010	BBBTel	10	1	6	1.5	0	0	0
511790104061011	AAAInternet	42	0	0	0	1	0	0
511790104061011	AAAInternet	50	0	0	0	1	1000	1000
511790104061011	BBBTel	20	0	0	0	1	3	3

The comma-delimited, plain text file containing these data viewed in a text editor like NotePad should look like this:

```
aaa_internet_fbd_3.csv - Notepad
File  Edit  Format  View  Help
511790104061009,AAAInternet,42,1,12,1.5,1,0,0
511790104061009,BBBTel,10,1,6,1.5,1,0,0
511790104061009,BBBTel,20,0,0,0,1,3,3
511790104061010,AAAInternet,42,1,12,1.5,0,0,0
511790104061010,BBBTel,10,1,6,1.5,0,0,0
511790104061011,AAAInternet,42,0,0,0,1,0,0
511790104061011,AAAInternet,50,0,0,0,1,1000,1000
511790104061011,BBBTel,20,0,0,0,1,3,3
```

4. Satellite Providers

Satellite providers that believe their deployment footprint can be best represented by every block in a particular state or set of states may abbreviate their upload file by submitting only one block-level record for each state included in the footprint and providing a note in the Explanations and Comments section.

For example, assume that satellite internet access provider, ASat, offers a 12/3 Mbps service. ASat offers other, lower bandwidth services, but the 12/3 Mbps service has the maximum downstream and upstream bandwidth available from ASat and is offered identically to residential and non-residential subscribers. ASat believes that it can offer service ubiquitously in the continental U.S.

Because ASat believes its deployment can be represented by identically for every block in the continental U.S., it can, instead of generating a list of all 11,078,297 (!) blocks in the continental U.S. where the only data column that varies is the 2010 Census block code, like so…
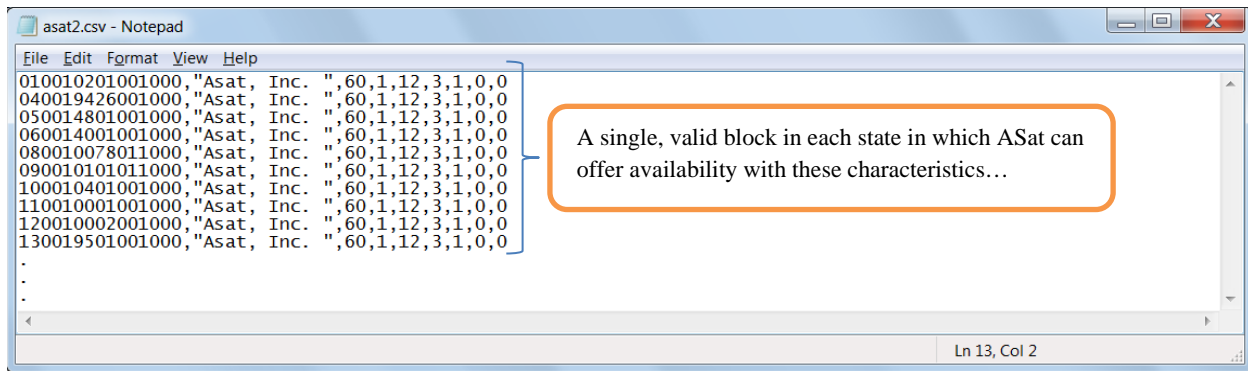
```
asat1.csv - Notepad
File  Edit  Format  View  Help
010010201001000,"Asat, Inc. ",60,1,12,3,1,0,0
010010201001001,"Asat, Inc. ",60,1,12,3,1,0,0
010010201001002,"Asat, Inc. ",60,1,12,3,1,0,0
010010201001003,"Asat, Inc. ",60,1,12,3,1,0,0
010010201001004,"Asat, Inc. ",60,1,12,3,1,0,0        The first ten blocks in Alabama…
010010201001005,"Asat, Inc. ",60,1,12,3,1,0,0
010010201001006,"Asat, Inc. ",60,1,12,3,1,0,0
010010201001007,"Asat, Inc. ",60,1,12,3,1,0,0
010010201001008,"Asat, Inc. ",60,1,12,3,1,0,0
010010201001009,"Asat, Inc. ",60,1,12,3,1,0,0
.
.
.
                                                                      Ln 13, Col 2
```

…fulfill its filing requirement by (a) uploading a list of 49 blocks (one valid block code for each state in which it can deploy ubiquitous service plus the service characteristics) to represent deployment in the 48 states and the District of Columbia:

A single, valid block in each state in which ASat can offer availability with these characteristics…

…and (b) adding a note to the Explanations & Comments section of the form.

ASat is permitted this shortcut because the eight required characteristics of its deployment are the same in each and every block in a particular state or set of states. That is,

(a) in every block in which the provider can deploy service, the values for DBA Name, Technology of Transmission, Consumer Flag, Maximum Advertised Downstream Bandwidth (Consumer), Maximum Advertised Upstream Bandwidth (Consumer), Business/Government Flag, Maximum Contractual Downstream Bandwidth (Business/Government) & Maximum Contractual Upstream Bandwidth (Business/Government) are the same. And,

(b) the provider can make service available to end users in <u>every</u> block in a state or set of states.

If, for example, ASat could deploy 5/1 Mbps service in all blocks in a state and 12/3 Mbps service in a subset of those blocks, then it would be necessary for ASat to file a list showing the blocks in which it could deploy its 12/3 Mbps service and the blocks in which its maximum advertised service is 5/1 Mbps.